

FXSG-250D-A Hose Crimping Machine Product Introduction

Note:

Thank you for purchasing our hose crimping machine, please read the introduction carefully before operation.

FXSG-250D-A Hose Crimping Machine is our latest products with large opening and big crimping force. It adopts large opening and double-slopped structure, so various elbows and unusual hose can go through easily. Meanwhile the advanced 24v low-voltage operated make the electrical control more safety and operated easily, it can suitable for various customer's requirement. It has accurate locator device for crimping that can be accurate to 0.01mm. There are manual and semi-automatic for you to choose for operation, so the crimping is convenient and fast. The die and die seat connect as doves' tail makes the die-changing conveniently. The return line on the hydraulic oil pipeline saved 60% time of recovery, which raises the production efficiency, greatly reduce the temperature-rising and make this machine more excellent.

Special notice:

Never using the machine before filling hydraulic oil into it.

Make sure the oil is clean.

The overpressure using is prohibited

The appurtenance standard dies are not suit for the semi-crimping, if you have such any other requirement, please make special dies order. The damage made by your deliberately operation will not be covered by the guarantee.

Contents

A、 Diagram..... 4

B、 Technical data..... 5

C、 Using and maintenance..... 6

D、 Hydraulic principle..... 11

E、 Electric structure..... 12

F、 Troubles and solutions..... 13

G、 1、 Reference of crimping range..... 14

2、 Notice for electric connection..... 15

A、Diagram



- | | | | | | |
|----------------------|--------------------|---------------------|--------------------|-----------------------|-----------------|
| 1. Air-released bolt | 2. Die seat | 3. Die | 4. Head | 5. location regulator | 6. Pedal switch |
| 7. Start button | 8. Crimping button | 9. Pressure gauge | 10. Opening button | | |
| 11. Functional key | 12. Stop button | 13. Indicator light | | | |

B、 Technical data

1. Specification:	FXSG--250D-A (drive by electricity)
2. Crimping force:	392T
3. Motor power:	4KW
4. Electric power:	380V·50HZ
5. Displacement of oil pump:	14.5L/min
6. Systematic pressure:	31.5Mpa
7. Hydraulic oil:	Below 10°C: HM32# Above 10°C: HM46#
8. Capacity of oil box:	380×480×580 mm ³
9. Volume:	635×800×1355 mm ³
10. Crimper range:	Φ6-Φ51mm

C、Using and maintenance

1. Machine storage

After carried the machine to workshop, open the wood case and remove the wire which fixed machine, examine every switch and components carefully to find whether there is damage by the transportation and fastener pieces loose or fall off. Change or fasten them carefully. Screwed the four carrying handle into handle casing and moving machine to appropriate place by hoisting equipment.

Note: when you place the machine, the distance between object and machine back not less than 1 meter, the two sides not less than 0.5 m. put the machine in a ventilated and dry room, keep the temperature above 10°C.

2. Connection, filling hydraulic oil and testing

2.1 This machine applies three-phase four-line power source. The power cord is copper $\geq 1.5^2 \times 3$, the switch $\geq 15A$, the ammeter $\geq 10A$.

2.2 Filling hydraulic oil into the machine: Open the front door in the case, you can find the hydraulic system in it. Fill the oil into the box through the filter and observe the cursor until it gets the graduation of 3/4 (about 75L). Above 10°C using HM46# hydraulic oil, and below 10°C using HM32# hydraulic oil.

2.3 Open the back door of machine and electric cabinet; put power cord connected into electric cabinet through the hole at the case's bottom-right and squareness hole in machine case. There have power patching plate in the bottom-right of electric cabinet, the wire connecting terminal (U,V,W) connects to the power line.

2.4 Before operation, the case must reliably earth, and earthen resistance should accord with the prescription

3. Operation

3.1 Before power on, turn the function key to the manual position.

3.2 Power on, the red power indicator light bright, Press the starting (green) button, then the oil pump starts. Observe the motor rotating direction, counterclockwise rotation is correct. Otherwise you can exchange any two wires of the three-phase to adjust it.

4. Adjustor

In front of the machine nose there is accurate adjustor device, by which the operator can set pressing degree according to different steel layers of hose. The block will release with 0.72mm axially by every time adjustment the locator for one Clockwise circle. By the counter-clockwise the block will tighten 0.72mm axially.

5. Manual operation

5.1 Turn the function key to the manual position, which is designed for adjust pressure and the crimping measurement.

5.2 Before first start the machine, the inner conical surface of front flange and piston should be lubricated by oil gun, the lubricating property of grease lubricant not less than 1# lithium grease.

5.3 Adjusting the adjustor to scale mark 0, press the crimping button down, the piston moving forward persistently, the die seat fold, It will stop when you release the button. Press the opening button, the piston moving backward and die seat opening.

5.4 You can use pedal switch under manual operation, step the pedal switch, the piston will moving forward persistently, the die seat fold, it will stop when you release pedal switch. When you press the opening button it will opening.

6. Semi-automatic operation

Turn the function key to semi-automatic position, adjusting adjustor to scale mark 4 or 5, press the crimping button(yellow) or step pedal switch one time, the piston will moving forward, the die seat fold, when it reach the preadjustment scale mark, it will opening and return to the first

position, waiting for the next order.

7. The choosing of die

7.1 User should choose right die according to different size of hose. The size of dimension for hose is marked on the top surface of the die. Note: choosing die must according to the hose specification.

7.2 The right procedure of installing the die: Loosen the screw, remove the guard plate, put the dies in clockwise order, then put the adaptation block and the guard plate, tighten the screws.

7.3 Lubricating the die seat: Every time the machine works, please fill lubricant into the seats, let the conical surfaces are fully lubricated, and then let machine doing unload motion for 5 minutes. The waste oil can flows into a container through the inner hole of the piston rod.

8. Example

8.1 If you want to crimper the hose $\Phi 19$. Turn the function key to the manual position, press the opening button, the die seat will opening, put the dies (mark the 19) into the die seat in clockwise order, and let the surface which marked 19 outward, then put the guard plate, tighten the screw.

8.2 The operator set pressing degree according to different steel layers of hose and the reference of crimping range. Put the prepared hose which with mandrill and ferrule into the nose, press the crimping button down and then the machine is in crimping until it reaches the preadjustment position. The machine will stop working if your finger leaves the crimper button during it working. Pressing opening button, take out hose, operator can adjust the adjustor scale if the hose is not accord with reference, after adjusted, the crimped effect can keep uniform. It also can operate by pedal switch.

8.3 If want to crimping hose by semi-automatic, turn the function key to the semi-automatic position, put the prepared hose into the nose, press crimping button or pedal switch one time, the piston moving forward automatically, die enclapsed hose and crimping it, when it reach the

preadjustment position die and piston will return to the first position.(it have already adjusted before leave factory).

9. Maintenance

9.1 Before first start the machine, the conical surface of front flange and piston should be lubricated. In order to guarantee the machine's service life, It can get to work after doing unload motion for 5 minutes.

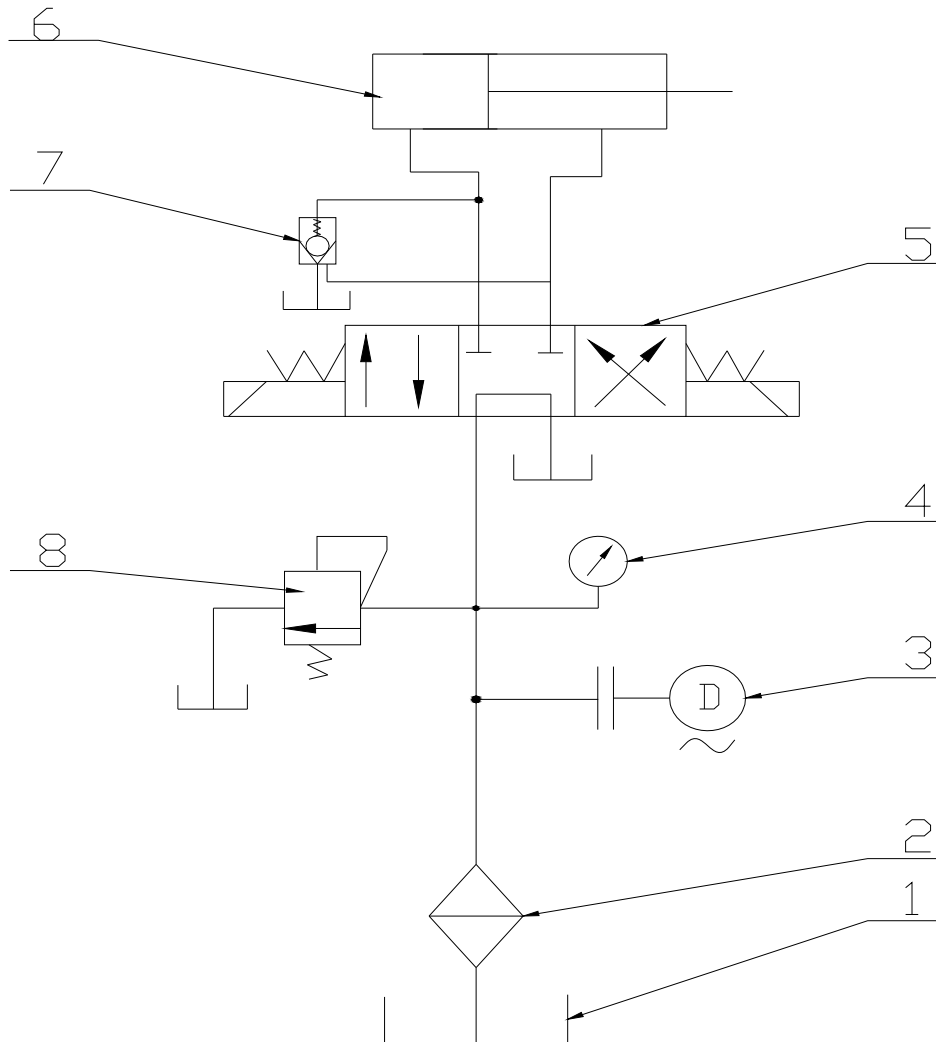
9.2 There is a pollution outlet and swab case under the front of the nose for discharging the polluted oil. Clean the swab case after using it for 1 month.

9.3 We're not liable if you adjust the systematic pressure higher than 31.5Mpa.

9.4 Periodically (every 2 month) examine the tighten screws of the flange, if they are loosening, please tighten them and calibrate them with torque spanner. The torque is 170-180N • m

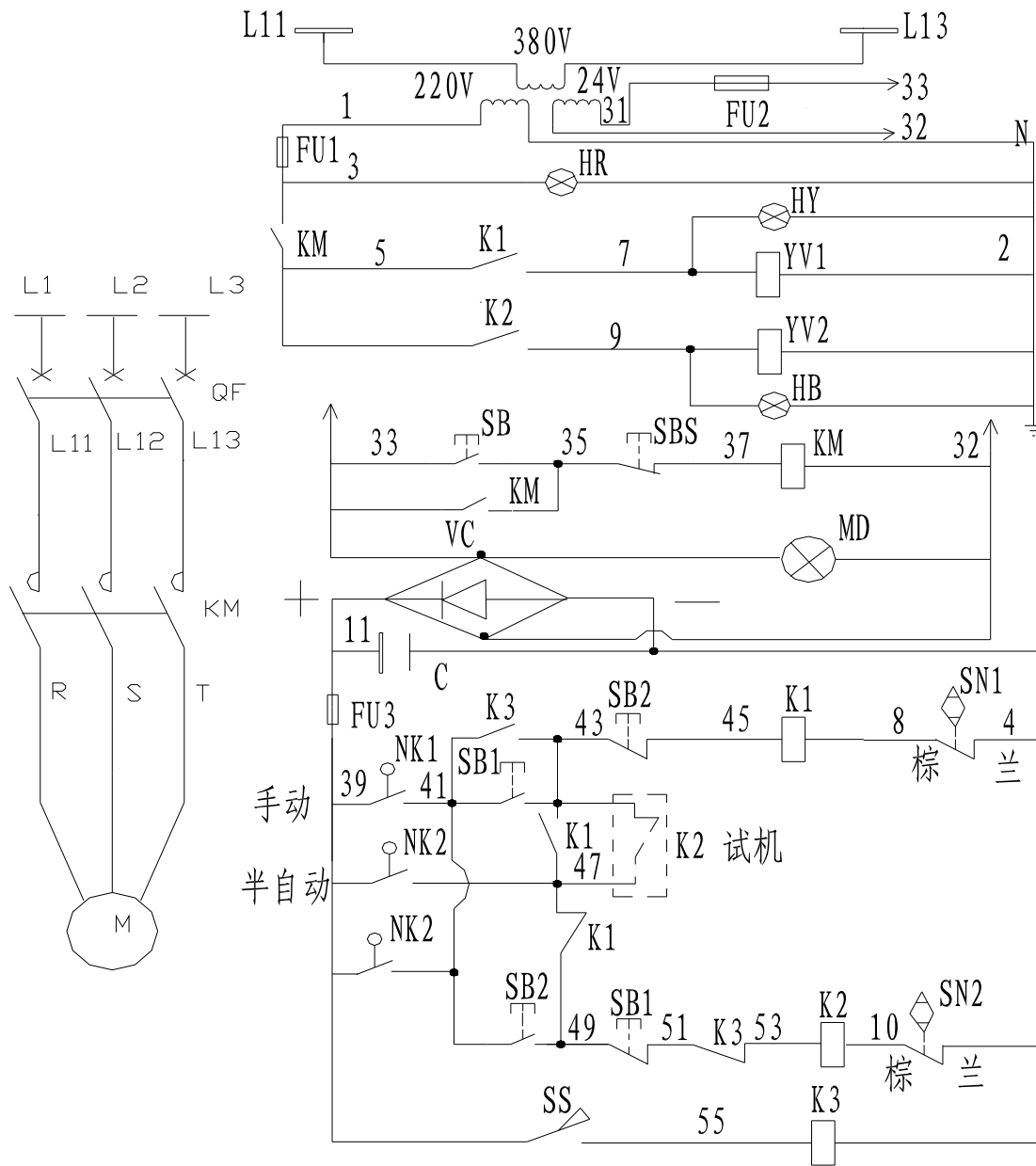
9.5 Periodically clean the oil suction filter and inner side of oil tank, carefully filter the oil every half year (the first cleaning is 3 month). Open the back door, take off the screw which fixed the oil tank, disconnect the pipeline of hydraulic power unit, take out the hydraulic station, take off the screw on oil tank plate, remove the oil tank plate, motor and valves, take out the oil suction filter and extract the oil, clear the oil suction filter by diesel oil and filter the oil. Then install the machine.

D、Hydraulic principle



1. Oil box 2. Purolator 3. Motor 4. Pressure Gauge 5. Electromagnetic Directional valve
6. Master cylinder 7. Hydraulic control pilot valve 8. High Pressure spillover valve

E、Electric structure



- | | | |
|------------------------------|---|-------------------------|
| 1. QF--Automatic switch | 2. KM--A.C. contactor | 3. T--Transformer |
| 4. FU1,FU2--Fuse | 5. HR,HY,HW--signal lamp | 6. SB/SBS—Buttons |
| 7. K1,K2--Intermediate relay | 8.YV1,YV2-- electromagnetic directional valve | |
| 9. K3--Intermediate relay | 10.SN1,SN2--Limited switch | 11.SS--Pedal |
| 12. NK1,NK2—toggle switch | 13.SB1,SB2--Lamp | 14.VC--rectifier bridge |
| 15. C--capacitance | 16.MD--Lamp | |

F、 Troubles and solutions

Troubles	Reasons	Solutions
No work of oil tank after start	1.No oil in the tank	1.Fill with enough oil
	2.The rotation direction of motor is opposite to the oil pump	2.Change the rotating direction of motor
	3.The hand wheel is loose	3.Adjust the pressure by the hand wheel
	4.Inner air existence	4.Turn on the exhaust tap and exhaust air
No pressure indication	1.The oil pump is damaged	1.Change the oil pump
	2.The pressure gauge is blocked or damaged	2.Wash the pipeline of pressure gauge and even change the pressure gauge
	3.The hand wheel of spillover valve is loose	3.Adjust the hand wheel of spillover valve
Oil tank is moving	1.Wrong oil(too dense or too thin)	1.Change the oil and turn on the air bleeder to deflate
	2. Too little hydraulic oil	2.Fill the oil
	3.The oil suction filter is blocked	3.Clean the oil suction filter
Too noise	1.Some waste in the oil pump	1.Clean the oil pump
	2.Lack of oil in the tank	2.Fill oil to the required level
	3.The low pressure spillover valve pressure is too low to work	3.Adjust it to 5Mpa
No exchange of direction	1.Electro distributor is damaged	1.Change the electromagnet
	2.The low pressure spillover valve is blocked	2.Clean the pressure spillover valve
	3.The hydraulic-control valve is blocked	3.Clean the hydraulic-control valve
Eight die seats are not moving synchrony	1.Lack of lubricating oil	1.Wash them with oil and turn on the machine with unload for times
	2.Springs are broken or out of shape	2.Change the spring
	3.the oil too dense	3. change the oil
	4. The oil suction filter is blocked	4. Clean the oil suction filter
The proximity switch doesn't work	1.Wires are not connected well	1.Reconnect the wire
	2. Proximity switch is damaged	2. Proximity the limited switch
Unmoral sound in face flange when pressing	The conical surface is scratched for not lubricated well	Take out the front flange and polish the damaged surface by the oil stone
Power off when turn it on	Incorrect energizing by the user	Check the power source and get rid of the hidden trouble

G、Reference of crimping range

Unit: mm

Dimension		Before crimping	Crimped	Dimension		Before crimping	Crimped
Φ6	I	19	17	Φ25	I	41	38
	II	21	18.5		II	43	39.5
Φ8	I	21	18.5		III	45	41.5
	II	23	20.5		IV	47	42.5
Φ10	I	23	20.5	Φ32	I	49	46
	II	25	22.5		II	51	47
Φ13	I	28	25.5		III	53	49
	II	31	28.5		IV	55	50.5
Φ16	I	31	28.5	Φ38	I	55	52
	II	34	31		II	57	53
	III	36	33		III	59	55
	IV	38	34.5		IV	60	56
Φ19	I	34	31	Φ51	I	68	64
	II	37	34		II	70	66
	III	39	35.5		III	72	67.5
	IV	41	37		IV	74	69

Note: “ I II III IV” stands for the layers of the hose.

Notice for electric connection

Dear Sir or Madam:

In order to enable your equipment working normally, the electrical devices are required as follows:

1. Wires for power supply: three-phase $\geq 1.5^2 \times 3 + 1^2 \times 1$ copper

single phase $\geq 2.5^2 \times 2$ copper

2. Switch: three-phase $\geq 15A$

Single phase $\geq 20A$

3. Ammeter: three-phase, four-line 10A (40)

Single phase 220v 10A (40)

4. Attention: If you use the leakage breaker, please set it with three-phase, four-wire switch. Null line should be from this three phase transformer, and well go through breaker switch. Three-phase breaker switch couldn't be used. If there isn't professional electrician, please don't use it, because the machine has been set with leakage circuit breaker.

Packing list

NO.	Name	Specification	Quantity	Remark
1	Die			
2	Handle		4	
3	Oil gun		1	
4	Oil box		1	
5	proximity switch	LJ12A3-4-ZDDC10-36V	2	
6	Spanner	5mm	1	
7	Relay	JQX-13F/2Z DC24V	2	
8	Instruction		1	
9	Fuse	RT18-32/1A	1	
10	Fuse	RT18-32/2A	1	

-----Fivestar Tools Co.,Ltd-----